

I CLAIM:

1. A method of configuring a memory controller, said memory controller having a plurality of input/output pins, said method comprising:
 - 5 informing said memory controller of a type of memory; and
 - configuring at least one said pin to have a functionality in accordance with said type of memory.
- 10 2. The method of claim 1 wherein said type of memory is a buffered memory.
3. The method of claim 1 wherein said type of memory is an unbuffered memory.
4. The method of claim 1 wherein said
 - 15 configuring comprises configuring said functionality of said pin to a clock signal function.
 5. The method of claim 4 wherein said clock signal function is a differential clock signal function.
- 20 6. The method of claim 1 wherein said configuring comprises configuring said functionality of said pin to a chip select signal function.
7. The method of claim 1 wherein said
 - 25 functionality of said pin is one of a chip select signal function and a clock signal function.

8. A method of providing more than one function for an output pin of a memory controller, said method comprising:

providing a clock signal within said
5 memory controller;
providing a control signal within said memory controller;
selecting within said memory controller one of said clock signal and said control signal based
10 on a type of memory; and
coupling said selected signal to said output pin.

9. The method of claim 8 wherein said type of memory is a buffered memory.

15 10. The method of claim 8 wherein said type of memory is an unbuffered memory.

11. The method of claim 8 wherein said clock signal is a differential clock signal.

12. The method of claim 8 wherein said
20 control signal is a chip select signal.

13. A memory controller comprising:
at least one output pin;
a multiplexer having two inputs, a control input, and an output coupled to said output
25 pin;
a chip select signal coupled to one of said two inputs;

a control signal coupled to the other one of said two inputs; and

a signal coupled to said control input that selects one of said chip select signal and said control signal based on a type of memory.

14. The memory controller of claim 13 wherein said type of memory is a buffered memory.

15. The memory controller of claim 13 wherein said type of memory is an unbuffered memory.

16. The memory controller of claim 13 wherein said control signal is a clock signal.

17. The memory controller of claim 16 wherein said clock signal is a differential clock signal.

18. A memory controller comprising:
at least one output pin;
a multiplexer having two inputs, a control input, and an output coupled to said output pin;
a clock signal coupled to one of said two inputs;
a control signal coupled to the other one of said two inputs; and
a signal coupled to said control input that selects one of said clock signal and said control signal based on a type of memory.

19. The memory controller of claim 18
wherein said type of memory is a buffered memory.

20. The memory controller of claim 18
wherein said type of memory is an unbuffered memory.

5 21. The memory controller of claim 18
wherein said control signal is a chip select signal.

22. The memory controller of claim 18
wherein said clock signal is a differential clock
signal.

10 23. A memory controller comprising:
 at least one output pin; and
 circuitry coupled to said output pin
that provides said output pin with selectable
functionality in accordance with a type of memory.

15 24. The memory controller of claim 23
wherein said functionality of said output pin is one of
a chip select signal function and a clock signal
function.

20 25. A memory circuit comprising:
 a plurality of memory modules, said
memory modules being of at least one type; and
 a memory controller coupled to said
memory modules via a plurality of pins, at least one of
25 said pins having a selectable functionality based on
said type of said memory modules.

26. The memory circuit of claim 25 wherein said selectable functionality comprises a clock signal function.

27. The memory circuit of claim 25 wherein
5 said selectable functionality comprises a chip select signal function.

28. A computer system comprising:
a central processing unit;
a memory controller coupled to said
10 central processing unit, said memory controller having a plurality of input/output pins; and
a plurality of memory modules of at least one type coupled to said memory controller via said pins; wherein:
15 a subplurality of said pins has selectable functionality, said functionality based on said type of said memory modules.

29. The computer system of claim 28 wherein said selectable functionality comprises a clock signal
20 function.

30. The computer system of claim 28 wherein said selectable functionality comprises a chip select signal function.

31. Apparatus for configuring a memory
25 controller, said memory controller having a plurality of input/output pins, said apparatus comprising:

means for informing said memory
controller of a type of memory; and

means for configuring at least one pin
of said memory controller to have a functionality in
5 accordance with said type of memory.

32. Apparatus for providing more than one
function for an output pin of a memory controller, said
apparatus comprising:

means for providing a clock signal
10 within said memory controller;

means for providing a control signal
within said memory controller;

means for selecting within said memory
controller one of said clock signal and said control
15 signal based on a type of memory; and

means for coupling said selected signal
to said output pin.

33. A memory controller comprising:

at least one output pin;

20 multiplexer means for outputting one of
at least two signals to said output pin;

signal means for selecting a chip, said
signal means coupled to said multiplexer means;

control signal means coupled to said
25 multiplexer means; and

means coupled to said multiplexer means
for selecting said control signal means based on a type
of memory.

34. A memory controller comprising:
at least one output pin;
multiplexer means having two inputs, a
control input, and an output coupled to said output
5 pin;
a clock signal coupled to one of said
two inputs;
a control signal coupled to the other
one of said two inputs; and
10 means coupled to said control input for
selecting one of said clock signal and said control
signal based on a type of memory.

35. A memory controller comprising:
at least one output pin; and
15 means for providing said output pin with
selectable functionality in accordance with a type of
memory.

36. A memory circuit comprising:
20 a plurality of memory modules, said
memory modules being of at least one type; and
memory controller means coupled to said
memory modules via input/output means, at least some of
said input/output means having a selectable
25 functionality based on said type of said memory
modules.

37. A computer system comprising:
central processing means;
memory controller means coupled to said

a plurality of memory modules of at least one type coupled to said memory controller means

5 via said input/output means; wherein:

a subplurality of said input/output means has selectable functionality, said functionality based on said type of said memory modules.